

Notice of Allowability

Application No.

10/698,366

Examiner

Robert DeBeradinis

Applicant(s)

ROWLEDGE, DARREL

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/03/03.
2. ☒ The allowed claim(s) is/are 1 and 18-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

The Examiner rewrote the abstract to conform to the requirement of having the abstract on a separate page. Please scan this page into the file.

The article 19 amendment is approved. Please replace, in the specification pages 2, 3, 4 with the amended pages 2, 3, 4, 4a.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

PRETORIUS 5,663,705 detects approaching vehicle lights and turns on warning lamp.

SMALLS 5,914,651 discloses a safety emergency flasher system for automatically sensing when there is another approaching vehicle thereby protecting oncoming drivers while conserving power.

Allowable Subject Matter

Claims 1, 18-35 allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record does not disclose or suggest, inter alia, a lamp visible to drivers of on coming vehicles wherein said lamp flashes at a predetermined frequency and said

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predetermined frequency being variable in proportion to the length of time said lamp has been activated.

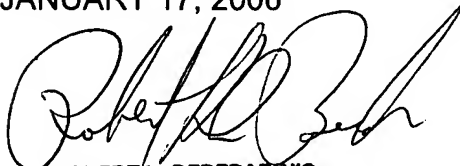
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571) 272-2049. The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Sircus, can be reached on (571) 272-2058. The Fax phone number for this Group is (703) 872-9306.

RLD

JANUARY 17, 2006



ROBERT L. DEBERADINIS
PRIMARY EXAMINER

Approved
[Signature]

ARTICLE 19 AMENDMENT

or accepted, safe and reliable method or device to allow them to communicate an advance warning to approaching vehicles.

While flashing one's headlights could be interpreted as such a warning, it is cumbersome and generally not understood as a signal connoting impending danger. Plus, one would have to repeatedly flash the vehicle headlights for each oncoming vehicle or group of vehicles. In addition, such practice is not advisable at night since either human or mechanical failure to get the lights back on presents a significant danger in itself. An additional problem with head light flashing, is that the driver of the oncoming vehicle has no way of knowing the distance to the upcoming, unexpected road hazard. This may result in the driver relaxing and speeding up just before coming upon the hazard.

Similarly, four-way flashers, which flash signal lights at all four corners of the vehicle simultaneously, indicate that the flashing vehicle is, itself, the hazard. Turn signals indicate turns. Even hand signals are of little value.

In United States Patent No. 5,237,306, issued to Robert Adell on August 17, 1993, a signalling system is described for requesting a driver of a motor vehicle to dim or turn on his vehicle's headlights, but Adell provides no means for warning on-coming drivers of an upcoming road hazard, or for informing them of the relative location of that road hazard.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a cooperative advance warning system for road hazards that will enable drivers to warn oncoming traffic of unusual and unexpected hazards which obviates and mitigates from the disadvantages of the prior methods.

A further object of the present invention is to provide a cooperative advance warning system for road hazards which is easy and convenient to initiate and requires little effort or distraction of the driver and which delivers an advance warning to oncoming drivers that is clear, obvious, unmistakable and which will not be confused with any other signal.

It is a further object of a preferred embodiment of the present invention to provide a cooperative advance warning system for road hazards that can be used to warn oncoming drivers of upcoming, unexpected road hazards and indicate to them whether the hazard is relatively near or far.

According to the present invention, there is provided a cooperative advance warning system for use on a vehicle to warn drivers of oncoming vehicles of an upcoming, unexpected road hazard comprising: a lamp mounted on the vehicle in a location where light emitted by the lamp is visible to drivers of the oncoming vehicles; a switch means connected to the lamp for activating and deactivating the lamp, the switch means mounted to the vehicle in a location that is easily accessible to the driver of the vehicle; and an electronic control means connected to the lamp for controlling the characteristics of the light emitted by the lamp, the electronic control means being capable of causing the lamp to flash on and off at a pre-determined frequency, the

predetermined frequency being variable depending on the length of time the lamp has been activated

5 According to another aspect of the present invention, there is provided a portable cooperative advance warning system for use in warning drivers of oncoming vehicles of an upcoming, unexpected road hazard comprising: a housing; a lamp mounted to the housing; a switch means mounted on the housing and connected to the lamp for activating and deactivating the lamp; an
10 electronic control means mounted to the housing and connected to the lamp for controlling the characteristics of the light emitted by the lamp, the electronic control means being capable of causing the lamp to flash on and off at a predetermined frequency, the predetermined frequency being variable depending on the distance from the road hazard; and a power supply for providing power to the system.

15 The present invention advantageously provides a cooperative advance warning system for road hazards which is inexpensive and easy to use. A further advantage is that it can be easily adapted to and installed on any vehicle, new or old. Another advantage is that the present system avoids
20 confusing drivers of oncoming vehicles by providing a warning which is specific to an upcoming, unexpected road hazard. Yet another advantage is that the present system is easy and convenient to initiate, takes little effort and causes little distraction to the driver. Additionally, an important advantage of a preferred embodiment of the present invention is that it can indicate to
25 drivers of oncoming vehicles whether the road hazard is near or far.

Other advantages, objects and features of the present invention will be readily apparent to those skilled in the art from a review of the following

detailed descriptions of a preferred embodiment in conjunction with the accompanying drawings and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

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Preferred embodiments of the present invention will now be described in greater detail, and will be better understood when read in conjunction with the following drawings, in which:

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Figure 1, is a schematic representation of a typical application of the present invention to warn drivers of oncoming vehicles of an upcoming, unexpected road hazard.

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Figure 2, is a schematic, partially sectional, plan view of the front portion of a vehicle on which the present invention has been installed.